

## **REMARKS**

In the Office Action of January 18, 2007, claims 21-27 directed to a system, method and software for providing persistence of complex data objects and their data relationships were pending. The Examiner has objected to claims and rejected claims as follows:

1. Claims 21-27 were provisionally rejected under non-statutory double patenting over co-pending applications 10/382,302, 10/158,672 and 10/386,011, which the examiner indicates can be resolved by a terminal disclaimer that applicant hereby agrees to provide upon an indication of allowable subject matter in this case.
2. Claims 21-23 and 27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,848,419 issued to Hapner et al. ("Hapner") in view of U.S. Patent 6,405,198 issued to Bitar et al. ("Bitar").
3. Claims 21-23 and 27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,848,419 issued to Hapner et al. ("Hapner") in view of U.S. Patent 6,405,198 issued to Bitar et al. ("Bitar") and further in view of U.S. Patent 6,269,373 issued to Apte et al. ("Apte").

With the above amendment, claims 21-27 (all of the prior claims) have been canceled without prejudice, and new claims 28-37 have been added that correspond

**PATENT**

Amendment dated July 17, 2007  
Reply to Office Action of January 18, 2007

Thought, Inc. Attorney Docket No.: 0036-023  
Serial No. 10/045,894

to the amended subject matter of cancelled claims 21-27. Such amendments clarify that a computer system is being claimed wherein complex objects are being persisted and such objects can be created, updated, deleted and changed with such changes being persisted to a permanent data source. Such amendments are made to expedite the prosecution of this case, only. Applicant reserves the right to assert the deleted or canceled subject matter in this case, or in a continuing application. Reconsideration of this subject matter is respectfully requested in view of the traversal of the prior art rejection included herein. After entry of the above amendment, Claims 28-37 are active in the case. The above rejections are addressed in part by the present amendments and are otherwise traversed by the arguments that follow.

**THE AMENDMENTS**

New base claims 28 and 31 has been amended to clarify a system and software wherein a complex data object, data object graph or portion of a data object graph is persisted to a permanent data source by a persistence manager that monitors transactions that are changes to the data of the object, accesses a persistence API and delegates persistence of the transacted changes to a persistence layer that accesses the data source to provide persistence of a complex data object (CDO), a data object graph or a portion of a data object graph as a CDOG (complex

**PATENT**

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Thought, Inc. Attorney Docket No.: 0036-023  
Serial No. 10/045,894

data object graph) to a permanent data source.

As appreciated by the Examiner in the January 18, 2007 Office Action at page 5, paragraph 1, a CDO is a data object having a relationship to itself or at least one other object, and the presently claimed invention requires that a persisted object be a CDO.

Moreover, the meaning of transparent persistence as defined in the present specification requires that the data from complex data objects and their relationships within an application be being persisted without the application being in communication with the software that is persisting it as a CDOG.

**THE 103(A) REJECTION UNDER HAPNER IN VIEW OF BITAR**

Claims 21-23 and 27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,848,419 issued to Hapner et al. (“Hapner”) in view of U.S. Patent 6,405,198 issued to Bitar et al. The entire rejection hinges upon the Examiner’s mistaken interpretation of Hapner at the top of page 5, lines 1 and 2, that “The data object(s) defined in Hapner contains pointer and the relationship to other object as seen in Fig. 3, col. 7, lines 29 – 55 of Hapner” as meaning that

**PATENT**

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Thought, Inc. Attorney Docket No.: 0036-023  
Serial No. 10/045,894

Hapner persists a complex object. Applicant strongly traverses this interpretation.

As shown in Figure 3 and more fully described in Figure 7 of Hapner:

- (i) a TRANSIENT object (numbered as 150, 152, 154, 158 in Figure 3 and referred to as a “servant object” 202 in Figure 7) that is NOT a complex data object (not a CDO) is created,
- (ii) a duplicate persistent object (numbered as 162 in Figure 3 and referred to as data object 204 in Figure 7), which is also NOT a complex data object (not a CDO) is created from a persistent database (numbered as 164 in Figure 3), has a pointer to the data source 164, and is temporarily stored in a particularly allocated portion of the system memory,
- (iii) the system object adaptor 208 obtains the memory location (pointer value) of the non-CDO persistent object 204 that was created in step (ii) without modifying 204 during this process,
- (iv) the TRANSIENT object 202 is modified by post-creation modification of the object adapter 208 in step 212 to form TRANSIENT CDO 202 by replacing its data pointer and incorporating a reference to another object, namely the memory

**PATENT**

Amendment dated July 17, 2007  
Reply to Office Action of January 18, 2007

Thought, Inc. Attorney Docket No.: 0036-023  
Serial No. 10/045,894

location of object 204 (inserts a pointer to the temporary memory location of the 204 non-CDO object).

As the Examiner will appreciate while the transient object may be a CDO by definition, also by definition the transient object itself is never persisted and only exists to point to the memory location of the persistent object when applications need to access data and functions available from the persistent object that is itself located in transient memory (see col. 4, lines 26-67).

There is no teaching of persisting of the CDO transient object, only persistence of the non-CDO persistent object that is a merely a reference for the transient object to locate. There is not mechanism described in Hapner for updating a data source with data from a transient servant object, or even for updating the data itself of the servant object. Apparently, this would be left to the programmer to accomplish by the application itself or by data source update calls independent of the persistent object. In fact, the persistent object would merely be asked to self-delete after a data source was updated independently of the outdated persistent object's data. Thus, no CDO was every persisted as a CDOG by Hapner.

Accordingly, Hapner does not even teach the invention as claimed in claims 21-27, much less as presently amended and clarified.

Bitar is related only to a permanent storage data source schema and the like, and does not cure the defects of Hapner. Likewise the combination does not teach the presently claimed invention.

**THE 103 REJECTION UNDER HAPNER IN VIEW OF BITAR AND APTE**

Claims 21-23 and 27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,848,419 issued to Hapner et al. ("Hapner") in view of U.S. Patent 6,405,198 issued to Bitar et al. ("Bitar") and further in view of U.S. Patent 6,269,373 issued to Apte et al. ("Apte").

Hapner does not teach or suggest the presently claimed invention for the reasons stated in the rejection over the combination of Hapner and Bitar.

For the reasons stated above, Bitar does not cure the defects in Hapner nor suggest the presently claimed invention.

Apte does not add anything further to Hapner and Bitar on transparent persistence of a CDO as a CDOG, and does not teach or suggest the invention.

Accordingly, this ground of rejection should be withdrawn.

Moreover, since there is no ancillary reference cited that would teach the equivalence of the Hapner system and software to the presently claimed computer system, the present claims are not obvious over the Hapner disclosure.

### **CONCLUSION**

Accordingly, applicant respectfully submits that the above objections and rejections have been overcome, and should be withdrawn. In view of the amendments (including corrections of informalities) and remarks, the present application is believed to be in condition for allowance. Based upon the aforementioned comments and amendments, it is urged that the claims are in condition for allowance, as is the remainder of the subject patent application. Favorable reconsideration is respectfully requested.

Applicant suggests that the Examiner set up a personal interview with the inventor and their agent, J G Mullins prior to any issuance of a further office action in order to expedite the prosecution of this case.

**PATENT**

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Serial No. 10/045,894

Should the Examiner have any questions, comments, or suggestions, or  
should issues remain, he is respectfully requested to contact the undersigned agent  
J.G. Mullins by telephone at 925 594 0900 for a prompt and satisfactory resolution.

Respectfully submitted,



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